## IN THE UNITED STATES PATENT OFFICE

In Re	Patent Application of:	)		
		)	Examiner:	Amanda T. Le
(paren	t)			
	Charles P. Norman, et al.	)	Art Unit:	2634 (parent)
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Applic	cation No. Not Yet Assigned	)		
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Filed:	HEREWITH	)		
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For:	STRONG SIGNAL CANCELLATION TO	)		
	ENHANCE PROCESSING OF WEAK SPREAD	)		
	SPECTRUM SIGNAL	_)		
W/h:al	is a continuation of U.S. San No. 00/994		7.1	
	is a continuation of U.S. Ser. No. 09/886			
WIIICII	is a continuation of U.S. Ser. No 09/461, now U.S. Patent 6,282,231	123	<b>)</b> ,	
	110W U.S. Fatcht 0,202,231	`		

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR § 1.97

Sir:

Enclosed are Information Disclosure Citation Forms PTO-1449 and PTO/SB/08 listing references cited in the parent patent applications. Because the references were cited and considered by the Examiner in the parent cases, copies of the references are not enclosed. It is respectfully requested that the cited references be considered and that the enclosed copies of the enclosed Forms be initialed by the Examiner to indicate such consideration and a copy thereof returned to Applicant.

Pursuant to 37 CFR 1.97(h), the submission of this Information Disclosure Statement is not to be construed as an admission that the information cited in this statement is material to patentability.

This Information Disclosure Statement is being submitted concurrently with the above-

captioned continuation application.

The Commissioner is hereby authorized to charge any fees which may be required in connection with this submission to Deposit Account No. 501914.

Respectfully submitted,

SHEMWELL GREGORY & COURTNEY LLP

Dated: November 12, 2003

Barbara B. Courtney
Registration No. 42,442

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	Des. 314,713	02/19/91	Ciranny et al				<u> </u>
	Des. 314,963	02/26/91	Best et al				
	Des. 343,383	01/18/94	Hall et al				
	Des. 344,942	03/08/94	Gilman et al				
	Des. 346,170	04/19/94	Tang			-	
	Des. 347,436	05/31/94	Tang				
·	Des. 354,451	01/17/95	Burrell et al	·			
- 1	Des. 354,452	01/17/95	Burrell et al.				
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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRAN YES	SLATION
	0 501 828 A1	09/22/92	EPO				
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	0 511 741 A1	11/04/92	EPO		·		
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	0 436 854 A2	07/17/91	EPO				
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	"Minimum Probabilit Transactions on Info	ty of Error for Asynchronou rmation Theory, Vol. IT-32,	us Gaussian Multiple-Access Ch , No. 1, January 1986	annels," by S	Sergio Ve	erdu for	EEEE
	"An Adaptive Cancel in a Power Line," by May 1990	ler of Cóchannel Interference Ryuji Kohno, et al. for IEE	ce for Spread-Spectrum Multipl EE Journal on Selected Areas in	e-Access Cor Communica	mmunicat tions, Vo	tion Ne	tworks o. 4,
		nterference Cancellation for 1. 46, No. 2, February 1998	CDMA," by Dariush Divsalar,	et al. for IE	EE Trans	actions	on
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	Des. 361,569	08/22/95	Jervis				
	Des. 363,488	10/24/95	Shumaker		• • •		
	Des. 365,032	12/12/95	Laverick et al				
	Des. 365,292	12/19/95	Laverick et al				
	4,203,071	05/13/80	Bowles et al				
	4,592,076	05/27/86	El-Banna				
	4,675,880	06/23/87	Davarian				
	4,691,348	09/01/87	Braathen			<u> </u>	
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	4,701,934	10/20/87	Jasper				
	4,754,465	06/28/88	Trimble				
·	4,758,959	07/19/88	Thoone et al	·			
	4,796,191	01/03/89	Honey et al	_			
	4,807,256	02/21/89	Holmes et al		,		
	4,847,862	07/11/89	Braisted et al				
	4,890,233	12/26/89	Ando et al		,		
	4,894,662	01/16/90	Counselman	·			
	4,910,526	03/20/90	Donnangelo et al				
	4,922,212	05/01/90	Roberts et al		-		
	4,928,106	05/22/90	Ashjaee et al				
	4,965,586	10/23/90	O'Neill et al				
	4,970,523	11/13/90	Braisted et al				
	5,043,736	08/27/91	Darnell et al				
	5,045,770	09/03/91	Brooks				
	5,075,694	12/24/91	Donnangelo et al				
	5,089,822	02/18/92	Abaunza et al	ı			
	5,099,493	03/24/92	Zeger et al				
	5,101,416	03/31/92	Fenton et al				
	5,107,227	04/21/92	Brooks				
	5,108,334	04/28/92	Eschenbach et al				
	5,109,344	04/28/92	Kakihara et al				
· .	5,111,150	05/05/92	Casey				
	5,119,101	. 06/02/92	Barnard				
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EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPLICABLE
	5,134,407	07/28/92	Lorenz et al		,	.:
	5,144,318	09/01/92	Kishi			
	5,146,471	09/08/92	Cowart			
	5,148,179	09/15/92	Allison			
	5,150,377	09/22/92	Vannucci			·
	5,153,583	10/06/92	Murdoch			
	5,157,697	10/20/92	Anvari et al			
	5,165,109	11/17/92	Han et al			
	5,173,715	12/22/92	Rodal et al			
	5,175,744	12/29/92	Crespo et al			
	5,187,450	02/16/93	Wagner et al	•		
	5,192,957	03/09/93	Kennedy			)
•	5,196,743	03/23/93	Brooks			•
	5,202,694	04/13/93	Farmer et al			
	5,202,829	04/13/93	Geier			
	5,210,540	05/11/93	Masumoto			
	5,219,067	06/15/93	Lima et al			,
	5,223,844	06/29/93	Mansell et al			
·	5,225,842	07/06/93	Brown et al			
	5,239,669 <sup>-</sup>	08/24/93	Mason et al			
	5,247,469 -	09/21/93	McCune, Jr.			
· .	5,263,053	11/16/93	Wan et al			
	5,265,025	11/23/93	Hirata			
· L	5,266,948	11/30/93	. Matsumoto			·
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		U.S. PATENT	DOCUMENTS				
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	5,268,064	12/07/93	Woo et al				
	5,268,695	12/07/93	Dentinger et al				
	5,272,485	12/21/93	Mason et al				
	5,282,228	01/25/94	Scott et al				
	5,293,170	03/08/94	Lorenz et al				
	5,296,861	03/22/94	Knight				
·	5,306,971	04/26/94	McCune				
	5,309,482	05/03/94	Wright et al		,		
	5,311,149	05/10/94	Wagner et al				
	5,311,197	05/10/94	Sorden et al				
	5,313,069	05/17/94	Tham			•	
	5,313,457	05/17/94	Hostetter et al				
	5,313,490	05/17/94	Schramm et al				
	5,319,374	06/07/94	Desai et al				
	5,321,799	06/14/94	McCune, Jr.			•	
	5,323,152	06/21/94	Morita				
	5,323,322	06/21/94	Mueller	,			
	5,329,549	07/12/94	Kawasaki				
	5,334,974	08/02/94	Simms et al				
	5,337,243	08/09/94	Shibata et al				
	5,345,244	09/06/94	Gildea et al.	-			
	5,347,284	09/13/94	Volpi et al				
	5,347,536	09/13/94	Meehan				
	5,347,546	09/13/94	Abadi et al				
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		U.S. PATENT	DOCUMENTS			
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	5,349,530	09/20/94	Odagawa	·		
	5,353,348	10/04/94	Sendyk et al			
	5,355,140	10/11/94	Slavin et al			
	5,365,192	11/15/94	Wagner et al			
	5,365,451	11/15/94	Wang et al			
	5,365,516	11/15/94	Jandrell			
	5,367,463	11/22/94	Tsuji			
	5,375,059	12/20/94	·Kyrtsos et al			
	5,383,127	01/17/95	Shibata			
	5,390,124	02/14/95	Kyrtsos			
	5,390,207	02/14/95	Fenton et al			
	5,402,347	03/28/95	McBurney et al			•
·	5,402,450	03/28/95	Lennen			
	5,406,491	04/11/95	Lima			
	5,408,193	04/18/95	Rodal			
	5,412,660	05/02/95	Chen et al			
.	5,412,687	05/02/95	Sutton et al			
	5,414,729	05/09/95	Fenton			
	5,416,712	05/16/95	Geier et al			
	5,418,537	05/23/95	Bird			
	5,420,593	05/30/95	Niles			
	5,422,813	06/06/95	Schuchman et al			
·	5,422,814	06/06/95	Sprague et al			
	5,422,816	06/06/95	Sprague et al			
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U.S. DEPARTMENT OF COMMERCE ATTY. DOCKET NO. SIRF. POLS. US. CA PATENT AND TRADEMARK OFFICE APPLICANT Charles P. Norman et al. INFORMATION DISCLOSURE CITATION (Use Several Sheets if Necessary) FILING DATE 2634 (Parent) HEREWITH U.S. PATENT DÓCUMENTS EXAMINER DOCUMENT NUMBER DATE FILING DATE
IF APPLICABLE SUB INITIAL CLASS 5,422,917 06/06/95 Scott 5,424,953 06/13/95 Masumoto et al 5,430,654 07/04/95 Kyrtsos et al 5,432,803 07/11/95 Liu et al 5,432,841 07/11/95 Rimer 5,432,859 07/11/95 Yang et al. 5,436,632 07/25/95 Sheynblat ' 5,448,773 09/05/95 McBurney et al 5,450,344 09/12/95 Woo et al 5,450,448 09/12/95 Sheynblat 5,452,211 09/19/95 Kyrtsos et al 5,465,413 11/07/95 Enge et al 5,467,095 11/14/95 Rodal et al 5,469,360 11/21/95 Ihara et al 5,471,218 11/28/95 Talbot et al 5,471,518 11/28/95 Barber et al 5,479,351 12/26/95 Woo et al 5,485,154 01/16/96 Brooks et al 5,485,161 01/16/96 Vaughn 01/16/96 5,485,163 Singer et al 5,486,834 01/23/96 Lennen 5,490,076 02/06/96 Rawicz et al 5,493,588 02/20/96 Lennen EXAMINER. DATE CONSIDERED

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	5,493,694	02/20/96	Vlcek et al	-		,
	5,495,257	02/27/96	Loomis			
	5,495,499	02/27/96	Fenton et al			
	5,504,491	04/02/96	Chapman			
	5,537,121	07/16/96	Lennen			
	5,537,323	07/16/96	Schulte			
	5,541,592	07/30/96	Shiihara			
	5,541,845	07/30/96	Klein			
	5,552,990	09/03/96	Ihara et al		·	
· .	5,572,218	11/05/96	Cohen et al			
	5,583,513	12/10/96	Cohen			
	5,604,732	02/18/97	Kim et al		•.	
	5,610,815	03/11/97	Gudat et al			
	5,612,972	03/18/97	Fukushi et al			
	5,619,212	04/08/97	Counselman, III			•
	5,640,416	06/17/97	Chalmers			
	5,675,608	10/07/97	Kim et al	,		
	5,689,252	11/18/97	Ayanoglu et al	<u> </u>		
	5,724,384	03/03/98	Kim et al			
	5,729,571	03/17/98	Park et al			
	5,742,922	04/21/98	Kim			
	5,781,152	07/14/98	Renard et al			
	5,790,549	08/04/98	Dent			•
	5,793,818	08/11/98	Claydon et al			
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		5,897,605	04/27/99	Kohli et al			
•		5,898,665	04/27/99	Sawahashi et al			•
		5,901,171	05/24/99	Kohli et al			
		5,901,183	05/04/99	Garin			•
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С	mpl t if Known
Application Number	not yet assigned
Filing Date	HEREWITH
First Named Inventor	Charles P. Norman
Group Art Unit	2634 (parent app)
Examiner Name	Amanda T. Le (Parent app)
Attorney Docket Number	SIRE P025 LIS C2

STATEMENT BY APPLICANT (use as many sheets as necessary)

INFORMATION DISCLOSURE

Sheet 10 of **U.S. PATENT DOCUMENTS** U.S. Patent Document Pages, Columns, Lines, Cite Name of Patentee or Applicant Examiner Where Relevant Passages or Relevant Kind Code<sup>2</sup> Cited Document of Cited Document Initials\* No.1 Number MM-DD-YYYY (if known) Figures Appear 4,701,934 **JASPER** 10-20-1987 5,604,503 Fowler et al 02-1997 6,236,354 Krasner 05-2001

				FOR	EIGN PATENT DOCUMENT	S		
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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				Application Number	not yet assigned		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT			ISCLOSURE	Filing Date	HEREWITH		
			APPLICANT	First Named Inventor	Charles P. Norman		
			741 - 21074141	Group Art Unit	2634 (parent app)		
•	(use as many s	heet	's as necessary)	Examiner Name	Amanda T. Le (Parent app)		
Sheet	Ł t	of	11	Attorney Docket Number	SIRF.P025.US.C2		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS							
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²				
		Sust M. K. et al: "Code and frequency acquisition for fully digital CDMA-VSATs", Countdown to the New Millienium. Pheonix, Dec 2-5, 1991, Proceedings of GLOBECOM, N.Y., IEEE, US, vol. 3, 2 Dec. 1991, ISBN: 0-87942-697-7; page 499, rt col., lines 32-55.					
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<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.